

**UNDERGROUND INJECTION CONTROL  
CLASS V  
APPLICATION FOR GENERAL PERMIT COVERAGE  
(Non-domestic Wastewater Facilities)**

**APPLICATION INSTRUCTIONS**

The following instructions outline the procedures to follow and information needed for a non-domestic wastewater Class V General Permit application as required by WWQRR Chapter 27. For other types of permit coverage, please contact the WDEQ. The WDEQ has sixty (60) days to determine application completeness.

For guidance or to resolve permit application submittal issues, please call (307)777-7072.

- A. The applicant shall submit the application in duplicate (one (1) original and one (1) electronic copy) to the following address:

Wyoming Department of Environmental Quality  
Water Quality Division  
ATTN: UIC Program  
200 W 17th St - 2nd Floor  
Cheyenne, WY 82002

- B. Applications shall be signed as follows:

- 1) An application submitted by a corporation must be signed by a president, secretary, vice president or treasurer of the corporation in charge of a principal business function, or other person who performs a similar decision making function for the corporation.
- 2) An application submitted by a partnership or sole proprietorship shall be signed by a general partner or the proprietor, respectively.
- 3) An application submitted by a municipality, or a state, federal, or other public agency shall be signed by either the principal executive officer or ranking elected official. "For" or "by" signatures are not allowed. Electronic signatures are not allowed.

- C. All applications are reviewed for completeness and technical adequacy. During the completeness review, the applicant may be contacted for clarification or additional information. An application will not be processed until all required information has been submitted. Severely lacking applications, applications submitted solely as electronic forms, applications without original signatures, applications with illegible information, or applications with information not submitted in a timely manner shall be returned to the applicant. If your application is determined to be complete and technically adequate, a letter granting Authorization under a General Permit shall be mailed to you, and the letter will also be provided electronically to the public for review on the Agency website.

- D. Applicants shall complete the entire application form. If you feel that any portion of the application does not apply to your facility, respond "not applicable" and provide your rationale as to why you believe the requirement does not apply to your facility. Applicants are not required to submit the instruction/example pages (annotated in the footer) with their applications.

- E. Use TABLE 1 (below) to determine your facility type (see Section 4 of permit application). Please note that 5C4 and 5E2 facilities are prohibited (banned), if you have one of these facilities please contact our office to resolve it.

**TABLE 1: UIC Facility Types (Check only one box corresponding to your facility)**

GENERAL PERMITS (WWQRR Chapter 27, Section 10) – Complete Application Sections 1 through 6, and 8			
Type		Description	Details
<input type="checkbox"/>	5A1	Direct Heat Reinjection Facility	Reinject geothermal fluids used to provide direct heat for large buildings, developments, or aquaculture facilities.
<input type="checkbox"/>	5A2	Heat Pump/Air Conditioner Return Flow Facility	Reinject groundwater used to heat or cool a building in a ground-based heat pump system, or used to inject heat only using a closed-loop heat pump system.
<input type="checkbox"/>	5B1	Mining, Sand, or Backfill Facility - Trona Only	Used to inject a fluid mixture of sand, cement, fly ash used as a pozzalin, or mill tailings into mined out portions of underground mines
<input type="checkbox"/>	5C5-4	Coal Bed Methane Open System	Inject water produced during coal bed methane extraction into a receiver with groundwater of the same or lower class of use. The facility utilizes surface impoundments as temporary storage of the produced water.
<input type="checkbox"/>	5C5-5	Coal Bed Methane Closed System	Inject water produced during coal bed methane extraction into a receiver with groundwater of the same or lower class of use. The facility utilizes does not use surface impoundments as temporary storage of the produced water.
<input type="checkbox"/>	5C6-5E5	Small Commercial and Non-Commercial Septic Systems	Commercial facilities that inject wastewater that is of similar quality to domestic sewage in quantities of less than 2,000 gallons per day OR Non-commercial facilities that inject less than 2,000 gallons per day as an average in a typical week and does not have a design capacity greater than 5,000 gallons per day
BANNED (PROHIBITED) FACILITY TYPES (WWQRR Chapter 27, Section 20) – Contact WDEQ to resolve			
Type		Description	Details
	5C4	Automotive Waste Disposal Facilities	Inject waste from floor drains or sinks where repair work is done on machinery of any description
	5E2	Untreated Domestic Sewage Disposal Facilities	Receive untreated domestic sewage from single or multiple sources. Does not include subsurface fluid distribution systems with septic tanks ahead of the subsurface fluid distribution system. Includes all cesspools, regardless of capacity.

**F. AREA OF REVIEW CALCULATIONS**

The Area of Review is the area for which information and analyses shall be submitted as part of an Underground Injection Control (UIC) permit application. The Area of Review (AOR) must include all portions of an aquifer that will be affected in a measureable way within ten (10) years of permit issuance.

- (1) Applicants may use an area of review that includes the quarter/quarter section (40 acre tract) where the facility is located and all of the adjacent quarter/quarter sections, provided the radius of volumetric fill-up (calculations provided below) is less than the default radius (a circle of approximately 2,230-ft in

radius). This will yield a total AOR of nine (9) quarter/quarters or a total of 360 acres with the injection facility near its center.

- (2) A radius of volumetric fill-up may be used to establish the AOR. The simplest formula allowable assumes that the injectate completely displaces all formation water in a circle around the point of injection. Other formulas may be used, if so, provide documentation as to applicability, source, and data used in the calculation. The simplest formula is:

$$R = \sqrt{\frac{Qt}{\pi Hp}} =$$

Where:

R = Radius of Volumetric Fill-up (feet)

H = Thickness of the Injection Zone (feet)

t = Time of injection (days, proposed life of well)

Q = Injection Rate (cubic feet per day)

p = Porosity, expressed as a pure decimal

$\pi = 3.14$

Note: Conversion Factor for gallons to cubic feet = 0.13368, for barrels to cubic feet = 5.61458

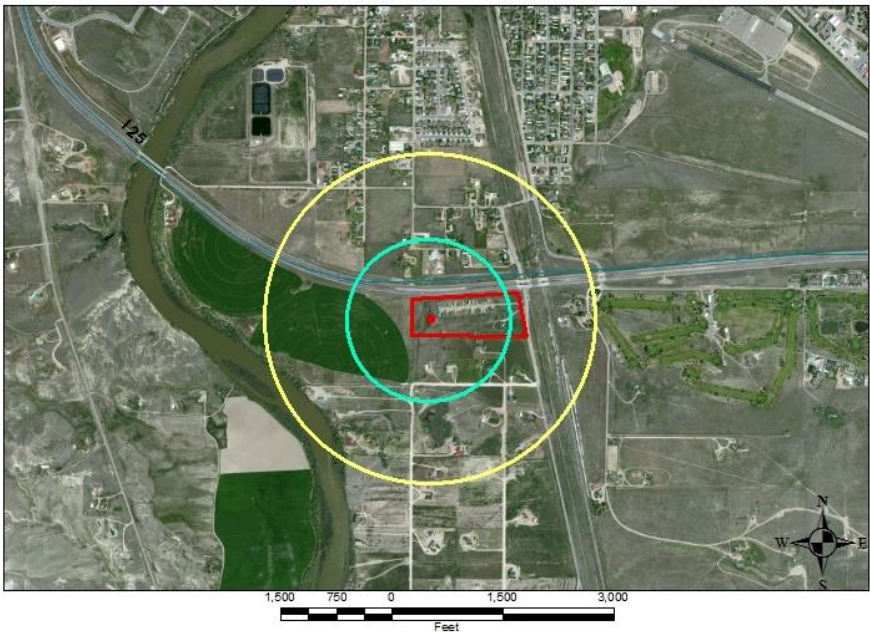
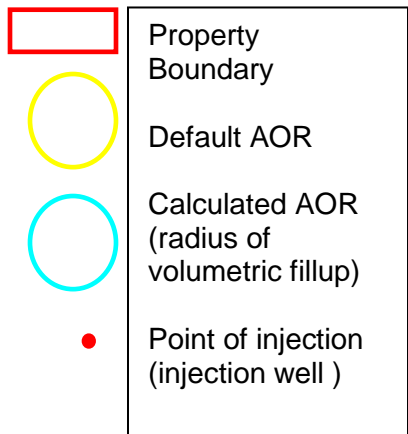
- (3) Other methodologies/formulas may be used. If electing to use an alternative formula/methodology, the formula/methodology must be provided and described. All inputs must be provided along with a description of how the inputs were calculated and/or determined, including any citations. Also provide a rationale as to why the alternative formula/methodology was selected, and its applicability in this instance.

NOTE: For a facility injecting a maximum of less than 10,000 gallons per day, the AOR is determined using method (1) above.

For a facility injecting a maximum of 10,000 gallons per day or more, the AOR is the larger of the values determined using all the above methods. (See following examples A and B).

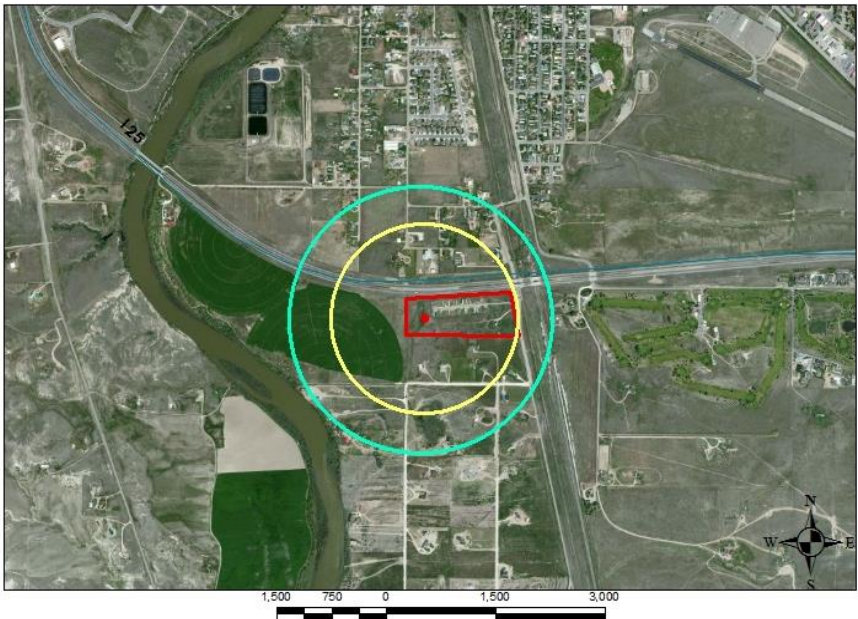
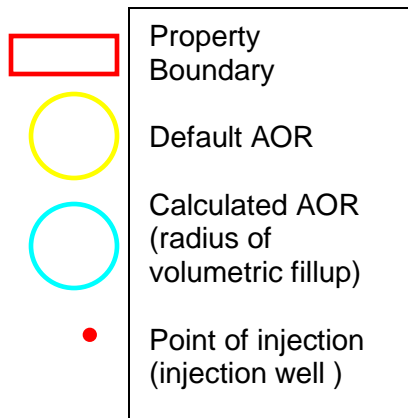
EXAMPLES: AREA OF REVIEW CALCULATIONS

AOR Visual Representation – Example A



In Example A, the yellow circle depicts the default AOR radius. The radius of volumetric fillup was calculated and is represented by the blue circle. In this case, the default AOR is larger, therefore the AOR for this injection well is the default (yellow circle) AOR.

AOR Visual Representation – Example B



In Example B, the yellow circle depicts the default AOR radius. The radius of volumetric fillup was calculated and is represented by the blue circle. In this case, the radius of volumetric fillup is larger, therefore the AOR for this injection well is the calculated radius of volumetric fillup (blue circle) AOR.

**G. EXAMPLE: Completed Area of Review Legal Description** (See Section 5, Item 4 of permit application)

In this example, the facility has one injection well (DW #1) located in the NENE, Section 15, Township 44N, Range 102W. The permittee has elected to use the default method of calculating their AOR, as their maximum proposed wastewater flows are below 10,000 gallons per day. The AOR should then be described as follows:

Well ID	Township	Range	Section	Quarter	Quarter/Quarter
DW #1	44N	102W	15	NE	NE*
				NE	NW
				NE	SW
				NE	SE
			14	NW	SW
				NW	SW
			11	SW	SW
			10	SE	SE
				SE	SW

\*Denotes injection well location

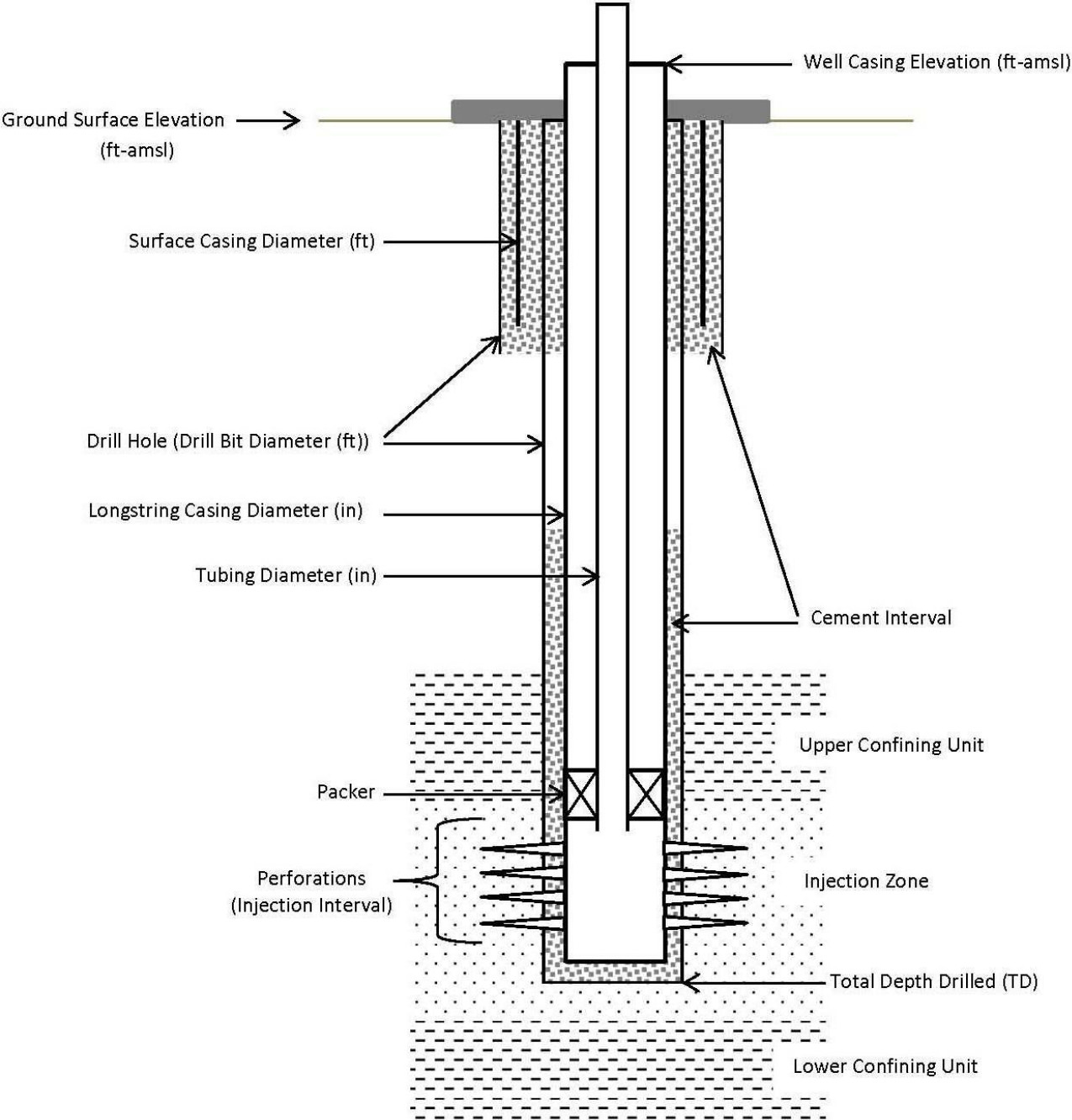
Complete additional tables for each injection well being permitted or renewed.

If the facility's injection well(s) are located in more than one quarter/quarter, the AOR shall be expanded to include all the quarter/quarters that the injection well(s) are located within and all adjacent quarter/quarters. For example, using the above example, if the facility has, in addition to the injection well described above (DW #1), an additional injection well located in the NENW, Section 15, Township 44N, Range 102W, (DW #2) the AOR should then be described as follows:

Well ID	Township	Range	Section	Quarter	Quarter/Quarter
DW #1	44N	102W	15	NE	NE*
				NE	NW
				NE	SW
				NE	SE
			14	NW	SW
				NW	SW
			11	SW	SW
			10	SE	SE
				SE	SW
DW #2	44N	102W	15	NE	NW*
				NE	SW
				NE	SE
				NE	NE
				NW	NE
				NW	SE
			10	SE	SE
				SE	SW
				SW	SE

\*Denotes injection well location.

H. EXAMPLE VERTICAL INJECTION WELL DIAGRAM



**UNDERGROUND INJECTION CONTROL PROGRAM  
CLASS V  
APPLICATION FOR GENERAL PERMIT COVERAGE  
(Non-domestic Wastewater Facilities)**

AGENCY USE ONLY		
Date Application Received	Permit Number	Facility Number

Use this application to request General Permit Coverage for Class V non-domestic wastewater injection wells (see attached Table 1 for a list of facility types that require permit coverage). Please answer every item on this form to the best of your knowledge and attach the required documents. The WDEQ has sixty (60) days to determine application completeness.

**SECTION 1: TYPE OF APPLICATION (Check one)**

☐ NEW FACILITY PERMIT ☐ PERMIT RENEWAL \_\_\_\_\_  
 (Provide UIC permit and/or facility #)

☐ PERMIT MODIFICATION \_\_\_\_\_  
 (Provide UIC permit and/or facility #)

## SECTION 2:

### COMPANY/OWNER CONTACT INFORMATION

COMPANY NAME: \_\_\_\_\_

COMPANY MAILING ADDRESS: \_\_\_\_\_

COMPANY CONTACT: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

TITLE: \_\_\_\_\_ EMAIL ADDRESS: \_\_\_\_\_

CONTACT TYPE (Choose one or more)

☐ OPERATOR    ☐ CONSULTANT    ☐ OWNER (Please specify business type)

☐ OTHER (Please specify) \_\_\_\_\_

PRIMARY CONTACT ☐ YES ☐ NO CONTACT ROLE: \_\_\_\_\_



---

### SECTION 3: FACILITY CONTACT INFORMATION

FACILITY NAME: \_\_\_\_\_ COUNTY: \_\_\_\_\_

FACILITY MAILING  
ADDRESS: \_\_\_\_\_

FACILITY PHYSICAL  
ADDRESS: \_\_\_\_\_

FACILITY CONTACT: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

TITLE: \_\_\_\_\_ EMAIL ADDRESS: \_\_\_\_\_

CONTACT MAILING  
ADDRESS: \_\_\_\_\_

CONTACT TYPE (choose one or more)

☐ OPERATOR ☐ CONSULTANT ☐ OWNER (Please specify type) \_\_\_\_\_

☐ OTHER (Please specify) \_\_\_\_\_

PRIMARY CONTACT: ☐ YES ☐ NO CONTACT ROLE: \_\_\_\_\_

List all persons or firms authorized to act on behalf of the applicant during the processing of the application. Provide contact names, mailing addresses, phone numbers, and e-mail addresses for all additional contacts.

---

### SECTION 4: FACILITY LOCATION

FACILITY LOCATION

Township \_\_\_\_\_ Range \_\_\_\_\_ Section: \_\_\_\_\_ Quarter/Quarter \_\_\_\_\_

Latitude: NAD83, decimal degrees: \_\_\_\_\_

Longitude: NAD83, decimal degrees: \_\_\_\_\_

LAND OWNERSHIP \_\_\_\_\_ If Other, describe: \_\_\_\_\_

---



## SECTION 5: WELL/FACILITY CLASSIFICATION AND PERMIT TYPE

- A. Determine your Class V facility classification (select one, see Table 1, Item E in "Instructions"):

Well/Facility Classification \_\_\_\_\_

- B. Select your permit type: ☐ Area Permit ☐ Single Permit

If the facility only has one injection well, select "Single Permit", if it has multiple injection wells, select "Area Permit", provided that:

- 1) The receiving formation is the same for all injection wells.
- 2) The wells are owned by the same person or company.
- 3) The injectate for all wells is similar in terms of chemistry and composition (similar waste streams).

If applying for an Area permit, provide information (as an attachment to this application) to satisfy all items in this application for each injection well.

- C. Attach a list of all other permits your facility has been required to obtain prior to construct and/or commencement of operations. Include permit number or permit designation and regulating authority.
- 

## SECTION 6: WELL/FACILITY PERMIT INFORMATION

- A. If the facility owner/operator is not the owner of the surface rights where the facility is located, attach copies of the access agreement between the owner(s) and the facility owner/operator. This requirement can be met by having the owner(s) of the property write a letter consenting to the activities proposed in this application. If there are more than one surface rights owners, attach a table detailing surface rights owner's names, mailing addresses, and telephone numbers.

- B. Provide a brief description of the nature of the business and the activities at the facility being permitted:

- C. Provide the types, sources, and general descriptions of the fluids proposed for injection, including chemical, physical, radiological, and toxic characteristics (attach analytical data to this application, if available, and/or MSDS sheets).

- D. Facility's average disposal capacity in gallons or barrels per day (circle one): \_\_\_\_\_

- E. Facility's maximum disposal capacity in gallons or barrels per day (circle one): \_\_\_\_\_

F. Depth of injection zone (feet below ground surface) \_\_\_\_\_

G. Required permit application attachments:

- 1) Plan view of the facility and property showing the location of the injection well(s).
- 2) A topographic map and other pertinent maps, extending:
  - a) At least  $\frac{1}{4}$  mile for General Permit applications (except for 5C5 General Permit applications),
  - b) At least  $\frac{1}{2}$  mile for 5C5 General Permit applications,
  - c) At least one (1) mile but not less than the Area of Review for Individual Permit applications.

The topographic map shall depict all of the following:

- a) Property boundaries and surrounding land uses,
  - b) The facility and each of its intake and discharge structures,
  - c) Each well, drywell, or subsurface fluid distribution systems where fluids from the facility are injected underground,
  - d) Other wells, springs, surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant.
  - e) North Arrow
  - f) Map Scale
  - g) Topographic interval (feet)
- 3) Construction and engineering details in accordance with WWQRR Chapter 25 (septic systems), Chapter 26 (wells) and/or Chapter 27 (Class V systems):
    - a) Vertical well construction information:
      - i.) For new wells, provide proposed total depth, proposed bit sizes, casing string details, tubing diameter, cementing plans, and wellhead type/description.
      - ii.) For existing wells, provide all the information in (i) above, and a copy of the daily drilling logs for the well.
      - iii.) Provide a detailed diagram that shows the following"
        1. Hole size(s)
        2. Casing string details
        3. Cemented portions of the well outside of each casing string (if any), include cement bond logs.
        4. Receiving formation
        5. Packer depth
        6. All underground sources of drinking water.
      - iv.) Include complete wellbore lithology and copies of any geophysical logs.
      - v.) Well information, including:
        1. Average injection rate (in barrels or gallons per day, please indicate units)
        2. Maximum injection rate (in barrels or gallons per day, please indicate units)
        3. Injection interval name, description, and thickness
        4. Surface well casing elevation
      - vi.) For Septic Systems only, provide the following:
        1. Drainfield Construction Information
          - a. Drainfield top and bottom elevations
          - b. Size and location of drainfield,
          - c. Size, construction, and location of all holding tanks (septic tanks),
          - d. Piping details
          - e. Depth to static water level

Details should be sufficient to show compliance with all applicable sections found in Chapters 26 and 27, Wyoming Water Quality Rules and Regulations.

- 4) For vertical injection well(s), complete Table 2, Section 5 and an injection well diagram (see example provided in Instructions, Section H) for each proposed, renewing, or modified injection well. Attach additional tables as needed.

**TABLE 2: VERTICAL WELL DETAILS**

<b>Well ID</b>				
<b>SEO or WOGCC Permit #</b>				
<b>Latitude (NAD83, decimal degrees)</b>				
<b>Longitude (NAD83, decimal degrees)</b>				
<b>Well Location (T/R/S/Qtr/Qtr)</b>				
<b>Total Depth Drilled</b>				
<b>Packer Depth (if applicable)</b>				
<b>Well Casing Elevation</b>				
<b>Casing Diameter</b>				
<b>Drill Bit Diameter</b>				
<b>Tubing Diameter</b>				
<b>Receiving Formation(s) (Injection Zone(s))</b>				
<b>Injection Interval Top Depth</b>				
<b>Injection Interval Bottom Depth</b>				
<b>Upper Confining (UC) Formation</b>				
<b>UC Formation Top Elevation</b>				

All new facilities must complete and submit an Injection Well Notification of Construction Completion, Form UIC-4, to the UIC Program upon construction completion for each new injection well.

- H. Applicant shall submit information necessary for the department to make an assessment of the vulnerability of the environmental and public health from the injection into the Class V well, as follows:

1) Depth to seasonally high groundwater in the shallowest aquifer: \_\_\_\_\_

2) For all wells identified within the area of review, provide a table containing the following:

- a) Well ID,
- b) Wyoming State Engineer's Office well permit number,
- c) Well owner's name,
- d) Well depth,
- e) Well screening intervals,
- f) Well use,
- g) Well locations in relation to the facility.

- 3) Provide documentation that the disposal capacity of the facility in gallons per day was calculated according to Table 1, Chapter 25, Section 2.

Does the facility have a meter to measure injectate volume?

Yes

☐

No

☐

If yes, attach the previous two (2) years injectate volume records, if applying for a permit renewal or modification.

- 4) Provide information on groundwater quality, lithology, geology, and hydrology in the formations underlying the facility.

- I. Additional information as required for Coal Bed Methane Produced Water Injections, UIC General Permits 5C5-4 and 5C5-5 (Chapter 27, Section 13(3)):

- 1) a) Attach a description of provisions proposed to control waste stream quality and prevent the injection of hazardous wastes. Injection of drilling fluids, spent oilfield chemicals, industrial wastes, and/or hazardous wastes is not allowed.
- b) Attach information used to determine the receiving formation's fracture pressure as defined in WWQRR, Chapter 27, and provisions that shall be implemented to control injection pressures.
- a) Attach sufficient groundwater quality data (see WWQRR, Chapter 8, Table 1) to classify each receiving aquifer. If analyses are not available during the application process, attach a plan describing how groundwater quality data will be obtained during the well completion process.
- b) Attach a copy of the proposed Mechanical Integrity Testing methods, as required by WWQRR Chapter 27, Section 13 (p)(vii).
- c) Attach proof that all surface rights, mineral, water rights, and oil and gas and/or coal rights owners located within a ½ mile of the facility have been notified of your intent to obtain coverage under a General Permit.
- d) Attach copies of the well construction plans and all surface facilities used as part of the coal bed methane injection facility.
- e) Attach a description of the proposed pre-treatment plan to ensure that biological, hazardous, toxic or potentially toxic materials are not discharged to groundwater at concentrations greater than the class of use standards established in WWQRR, Chapter 8.
- f) Attach a Spill Prevention Plan describing how biological, hazardous, toxic or potentially toxic materials will be prevented from entering the facility's waste stream prior to injection.
- g) Attach a description of the disinfection process that will be implemented if analyses demonstrate that coliform, sulfate reducing, or iron fixing bacteria are present in groundwater pumped from the coal seam(s).
- h) As of July 1, 2018, submission of financial assurance as established in WWQRR, Chapter 27, Section 19(C).**

NOTE: All 5C5 applicants are also required to have a WYPDES permit (<http://deq.wyoming.gov/wqd/wypdes/>)

---

## SECTION 7: CERTIFICATION REQUIREMENTS

### A. Sage Grouse Core Determination Area:

Pursuant to the requirements of the Governor's Executive Order 2015-4 (SGEO), Greater Sage Grouse Area Protection, applicants for new UIC permits must determine if any part of their project falls within a Greater Sage Grouse Core Area (SGCA) before applying for permit coverage. If any part of the project falls within an SGCA, the first point of contact for addressing sage grouse issues is the Wyoming Game and Fish Department (WGFD). Please coordinate with the WGFD and obtain written confirmation of consistency with the Executive Order prior to applying for coverage under a UIC permit and submit this documentation as part of the permit application package. Note that the application will not be processed until a letter confirming consistency with the Executive Order has been obtained.

Additional information on SGCAs can be found on the Wyoming Game and Fish Habitat website, at: <https://wgfd.wyo.gov/Habitat/Sage-Grouse-Management>

Please check one of the following:

- ☐ Some part, or all, of my project falls within an SGCA and I have contacted the WGFD for an SGEO review. A letter from the WGFD confirming consistency with the Executive Order is attached.
- ☐ Some part, or all, of my project falls within an SGCA and I have contacted the WGFD for an SGEO review. It does not comply with the SGEO. I have valid and existing rights related to this permit. I have committed to the attached recommendations that will minimize impacts to sage grouse.
- ☐ By checking this box, I certify that I have reviewed the SGCAs available on-line, and determined that no portion of my project falls within an SGCA. *(No additional requirements apply.)*

### D. Access for Inspections:

As part of their [application/renewal/permit modification], the applicant shall certify under penalty of perjury that the applicant has secured and shall maintain permission for Department of Environmental Quality personnel and their invitees to access the permitted [site/facility], including (i) permission to access the land where the [site/facility] is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the [site/facility] if the [site/facility] cannot be directly accessed from a public road. A map of the access route(s) to the [site/facility] shall accompany the [application/renewal/transfer].

I, \_\_\_\_\_, certify under penalty of perjury that [owner/applicant] has secured and shall maintain permission for the Department of Environmental Quality personnel and their invitees to access the permitted [site/facility], including (i) permission to access the land where the [site/facility] is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the [site/facility] if the [site/facility] cannot be directly accessed from a public road.

**E. CERTIFICATION OF THE OWNER/OPERATOR OF THE FACILITY:**

Please note: Professional Engineer's and/or Geologist's Certifications are required for new and modified facilities.

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment."*

\_\_\_\_\_  
Printed Name of Applicant

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date Signed

---

**CERTIFICATION OF ENGINEER:**

*"The engineering designs, plans, and specifications which are included in this application were all done by me or by someone working directly for me. I have reviewed the designs, plans, and specifications and certify that they are all done according to the highest standards of Professional Engineering."*

\_\_\_\_\_  
Printed Name of Professional Engineer

\_\_\_\_\_  
P. E. Number

(SEAL)

\_\_\_\_\_  
Signature of Professional Engineer

\_\_\_\_\_  
Date Signed

---

**CERTIFICATION OF GEOLOGIST:**

*"The geologic interpretations, cross sections, and hydrologic studies which are included in this application were all done by me or by someone working directly for me. I have reviewed that work and certify that they are all done according to the highest standards of Professional Geology."*

\_\_\_\_\_  
Printed Name of Professional Geologist

\_\_\_\_\_  
P. G. Number

(SEAL)

\_\_\_\_\_  
Signature of Professional Geologist

\_\_\_\_\_  
Date Signed